

ABSTRACT

A diamond-like carbon film (DLC film) is formed on the surface of a base material made of an inorganic material, such as ceramics, or the like, or an organic material, such as resin, or the like. The surface of the resultant DLC film is treated with plasma, or the like, so as to be activated. Various monomers having biocompatibility, etc., are graft-polymerized to the activated surface of the DLC film, whereby a polymer layer is formed from the monomers grafted to the surface of the DLC film. Thus, the base material coated with the DLC film modified with a polymer which does not readily separate can be realized.